General

Guideline Title

Management of adnexal masses.

Bibliographic Source(s)

American College of Obstetricians and Gynecologists (ACOG). Management of adnexal masses. Washington (DC): American College of Obstetricians and Gynecologists (ACOG); 2007 Jul. 14 p. (ACOG practice bulletin; no. 83). [116 references]

Guideline Status

This is the current release of the guideline.

The American College of Obstetricians and Gynecologists (ACOG) reaffirmed the currency of this guideline in 2011.

Recommendations

Major Recommendations

The grades of evidence (I-III) and levels of recommendation (A-C) are defined at the end of the "Major Recommendations" field.

The following recommendations and conclusions are based on limited or inconsistent scientific evidence (Level B):

> In asymptomatic women with pelvic masses, whether premenopausal or postmenopausal, transvaginal ultrasonography is the imaging modality of choice. No alternative imaging modality has demonstrated sufficient superiority to transvaginal ultrasonography to justify its routine use.
> Specificity and positive predictive value of CA 125 level measurements are consistently higher in postmenopausal women compared with premenopausal women. Any CA 125 elevation in a postmenopausal woman with a pelvic mass is highly suspicious for malignancy.
> Simple cysts up to 10 cm in diameter on ultrasound findings are almost universally benign and may safely be followed without intervention, even in postmenopausal patients.
> Unilateral salpingo-oophorectomy or ovarian cystectomy in patients with germ cell tumors, stage I stromal tumors, tumors of low malignant potential, and stage IA, grade 1–2 invasive cancer who undergo complete surgical staging and who wish to preserve fertility does not appear to be associated with compromised prognosis.

The following recommendations and conclusions are based primarily on consensus and expert opinion (Level C):

> Women with ovarian cancer whose care is managed by physicians who have advanced training and expertise in the treatment of women with ovarian cancer, such as gynecologic oncologists, have improved overall survival rates compared with those treated without such collaboration.

Most masses in pregnancy appear to have a low risk for both malignancy and acute complications and, thus, may be considered for expectant management.

Definitions:

Grades of Evidence

I Evidence obtained from at least one properly designed randomized controlled trial.

II-1 Evidence obtained from well-designed controlled trials without randomization.

II-2 Evidence obtained from well-designed cohort or case–control analytic studies, preferably from more than one center or research group.

II-3 Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments also could be regarded as this type of evidence.

III Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees.

Levels of Recommendation

Level A — Recommendations are based on good and consistent scientific evidence.

Level B — Recommendations are based on limited or inconsistent scientific evidence.

Level C — Recommendations are based primarily on consensus and expert opinion.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Adnexal masses (ovarian neoplasms)

Guideline Category

Diagnosis

Evaluation

Management

Risk Assessment

Clinical Specialty

Nuclear Medicine

Obstetrics and Gynecology

Oncology

Surgery

Intended Users

Physicians

Guideline Objective(s)

To aid practitioners in making decisions about appropriate obstetric and gynecologic care
To review the most recent data on imaging modalities, operative assessment of the adnexal mass, and preoperative models to predict the probability of ovarian malignancy

Target Population

Women of all ages with suspected ovarian neoplasm

Interventions and Practices Considered

Evaluation and Diagnosis

- History and physical examination
  - Assessment of risk factors
  - Pelvic examination
  - Premenopausal versus postmenopausal women
- Differential diagnosis
  - Benign versus malignant masses
  - Gynecologic versus nongynecologic origin
- Imaging
  - Gray-scale transvaginal ultrasound
  - Other imaging modalities including color Doppler ultrasound, computed tomography scan, magnetic resonance imaging, positron emission tomography scan (considered but not recommended for routine use)
- Serum markers
  - CA 125
  - Beta-human chorionic gonadotropin (hCG)
  - Lactic dehydrogenase (LDH)
  - Alpha-fetoprotein (AFP)
- Aspiration of nonunilocular cyst

Management

- Observation
- Referral to a gynecologic oncologist
- Expectant management of adnexal masses in pregnancy
- Operative assessment
  - Laparotomy versus laparoscopy for unilateral masses
  - Cystectomy
  - Unilateral oophorectomy
  - Salpingo-oophorectomy
  - Hysterectomy
  - Bilateral salpingo-oophorectomy
  - Conservative approaches

Major Outcomes Considered

- Incidence of benign adnexal masses

Incidence of malignant adnexal masses
Surgical complication rates
Mortality
Sensitivity and specificity of diagnostic tests

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

2007 Guideline

The MEDLINE database, the Cochrane Library, and the American College of Obstetricians and Gynecologists' own internal resources and documents were used to conduct a literature search to locate relevant articles published between January 1985 and January 2007. The search was restricted to articles published in the English language. Priority was given to articles reporting results of original research, although review articles and commentaries also were consulted. Abstracts of research presented at symposia and scientific conferences were not considered adequate for inclusion in this document. Guidelines published by organizations or institutions such as the National Institutes of Health and the American College of Obstetricians and Gynecologists were reviewed, and additional studies were located by reviewing bibliographies of identified articles.

2011 Reaffirmation

Medline/Pubmed/Cochrane databases were searched for literature published from 2007-2011.

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Studies were reviewed and evaluated for quality according to the method outlined by the U.S. Preventive Services Task Force:

I Evidence obtained from at least one properly designed randomized controlled trial.

II-1 Evidence obtained from well-designed controlled trials without randomization.

II-2 Evidence obtained from well-designed cohort or case–control analytic studies, preferably from more than one center or research group.

II-3 Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments also could be regarded as this type of evidence.

III Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees.

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review

Description of the Methods Used to Analyze the Evidence

Not stated

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

2007 Guideline

Analysis of available evidence was given priority in formulating recommendations. When reliable research was not available, expert opinions from obstetrician–gynecologists were used. See also the "Rating Scheme for the Strength of Recommendations" field regarding Grade C recommendations.

2011 Reaffirmation

A committee member reviewed the document and new literature search on the topic. The document was then reviewed by the committee and the committee agreed that it is current and accurate.

Rating Scheme for the Strength of the Recommendations

Based on the highest level of evidence found in the data, recommendations are provided and graded according to the following categories:

Level A — Recommendations are based on good and consistent scientific evidence.

Level B — Recommendations are based on limited or inconsistent scientific evidence.

Level C — Recommendations are based primarily on consensus and expert opinion.

Cost Analysis

Published cost analyses of ultrasonography and other imaging modalities were reviewed.

Method of Guideline Validation

Internal Peer Review

Description of Method of Guideline Validation

Practice Bulletins are validated by two internal clinical review panels composed of practicing obstetrician-gynecologists generalists and sub-specialists. The final guidelines are also reviewed and approved by the American College of Obstetricians and Gynecologists (ACOG) Executive Board.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Appropriate evaluation and diagnosis of adnexal masses, and referral of women with newly diagnosed masses to a gynecologic oncologist

Potential Harms

Surgical complications

Contraindications

Contraindications

Aspiration of Nonunilocular Cyst Fluid

> Aspiration of nonunilocular cyst fluid for both diagnosis and treatment of an adnexal mass may seem quicker, less invasive, and less expensive than surgery; however, it is typically regarded as contraindicated in postmenopausal women for several reasons, especially when there is a suspicion for cancer. First, diagnostic cytology has poor sensitivity to detect malignancy, ranging from 25% to 82%. In addition, even when a benign mass is aspirated, the procedure often is not therapeutic. Approximately 25% of cysts in perimenopausal and postmenopausal women will recur within 1 year of the procedure. Finally, aspiration of a malignant mass may induce spillage and seeding of cancer cells into the peritoneal peritoneal cavity, thereby changing the stage and prognosis. Although definitive evidence supporting this notion is lacking, there have been many cases of aspirated malignant masses recurring along the needle tract through which the aspiration was done. Furthermore, there is strong evidence that spillage at the time of surgery decreases overall survival of stage I cancer patients compared with patients with tumors that were removed intact.
> An exception to avoiding aspiration of a mass exists for those patients who have clinical and radiographic evidence of advanced ovarian cancer and who are medically unfit to undergo surgery. In these women, malignant cytology confirmed in this fashion will establish a cancer diagnosis, thereby permitting initiation of neoadjuvant chemotherapy.

Laparoscopic Surgery

In general, if a mass is suspicious for cancer based on transvaginal ultrasound findings, CA 125 levels, and clinical assessment, laparoscopic surgery usually is considered contraindicated, although laparoscopic staging and management of ovarian cancer have been reported.

Qualifying Statements

Qualifying Statements

These guidelines should not be construed as dictating an exclusive course of treatment or procedure. Variations in practice may be warranted based on the needs of the individual patient, resources, and limitations unique to the institution or type of practice.

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Audit Criteria/Indicators

Foreign Language Translations

Patient Resources

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

Living with Illness

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

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Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2007 Jul (reaffirmed 2011)

Guideline Developer(s)

American College of Obstetricians and Gynecologists - Medical Specialty Society

Source(s) of Funding

American College of Obstetricians and Gynecologists (ACOG)

Guideline Committee

American College of Obstetricians and Gynecologists (ACOG) Committee on Practice Bulletins - Gynecology

Composition of Group That Authored the Guideline

Not stated

Financial Disclosures/Conflicts of Interest

Not stated

Guideline Status

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Guideline Availability

Electronic copies: None available

Print copies: Available for purchase from the American College of Obstetricians and Gynecologists (ACOG) Distribution Center, PO Box 933104, Atlanta, GA 31193-3104; telephone, 800-762-2264, ext. 192; e-mail: sales@acog.org. The ACOG Bookstore is available online at the ACOG Web site.

Availability of Companion Documents

Proposed performance measures are included in the original guideline document.

Patient Resources

The following is available:

- Cancer of the ovary. Atlanta (GA): American College of Obstetricians and Gynecologists (ACOG); 2007.

Electronic copies: Available from the American College of Obstetricians and Gynecologists (ACOG) Web site. Copies are also available in Spanish.

Print copies: Available for purchase from the American College of Obstetricians and Gynecologists (ACOG) Distribution Center, PO Box 933104, Atlanta, GA 31193-3104; telephone, 800-762-2264, ext. 192; e-mail: sales@acog.org. The ACOG Bookstore is available online at the ACOG Web site.

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors

or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC Status

This NGC summary was completed by ECRI Institute on July 30, 2008. The information was verified by the guideline developer on August 20, 2008. The currency of the guideline was reaffirmed by the developer in 2011 and this summary was updated by ECRI Institute on November 16, 2012.

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